

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA

LARRY BOWOTO, et al.,

No. C 99-02506 SI

Plaintiffs,

**ORDER GRANTING IN PART
PLAINTIFFS' MOTION TO EXCLUDE
EXPERT TESTIMONY OF FREED AND
EBERT**

v.

CHEVRON CORP., et al.,

Defendants.

On June 9, 2006, the Court heard argument on plaintiffs' motion to exclude the expert testimony of Gary Freed and Jim Ebert. Having considered the arguments of counsel and the papers submitted, and for good cause appearing, the Court GRANTS IN PART plaintiffs' motion.

BACKGROUND

On January 9, 2006, defendants designated Freed and Ebert as expert witnesses who they expect to testify at trial. Both witnesses provided expert reports disclosing their opinions about a three-dimensional computer model of a barge, known as the "CBL-101 barge" or the "Seaway Orion," that was the location for one of the major incidents in this case. *See* Teukolsky Decl., Exhs. 1-2. The model not only demonstrates what the barge as a whole looks like, but also allows the viewer to navigate to a specific spot on the barge to see the perspective of a person standing at that viewpoint. *See, e.g.,* Sand Decl., Exh. K.

Based on contemporary and historical photographs and technical drawings of the barge, Freed created the model using a program called LightWave 3D. Much of the evidence Freed used to create the model was collected by Ebert, who visited the barge at its current location in Angola in late 2005.

1 While in Angola, Ebert obtained three technical drawings of the barge, took 472 digital photographs
2 from the barge's deck and from a helicopter, and personally took measurements of the dimensions of
3 features on the barge. Ebert provided these items to Freed, who created the computer model. The
4 structure of the computer model was based entirely on the three technical drawings that Ebert obtained
5 during his site visit, but Freed also used the photographs to include details like handrails, stairways,
6 temporary fixtures, and colors.

7 Freed and Ebert now offer their opinions that the computer model accurately depicts the barge's
8 permanent structures. Freed's report states that the model accurately depicts those structures "as well
9 as the positions and fields of view of various witnesses." Teukolsky Decl., Exh. 1. Ebert's report
10 discloses three opinions: 1) the plan drawings correctly represent the layout of the barge; 2) the plan
11 drawings are accurate; and 3) "perspective views made from the model correctly reflect the
12 configuration and appearance of the CBL-101." Teukolsky Decl., Exh. 2.

13 Plaintiffs now move to exclude Freed and Ebert from testifying at trial. Specifically, they
14 contend that the barge model is inaccurate because it fails to reflect the configuration of the barge on
15 May 28, 1998. Thus, plaintiffs argue that using the model to illustrate a witness's perspective will
16 mislead the jury into believing that the witness had an unimpeded view, when that may not have actually
17 been the case.

18 19 LEGAL STANDARD

20 Federal Rule of Evidence 702 governs the admissibility of expert testimony. Under the rule, an
21 expert may offer an opinion on an issue of "scientific, technical, or other specialized knowledge" if the
22 knowledge "will assist the trier of fact to understand the evidence or to determine a fact in issue." Fed.
23 R. Evid. 702. Expert testimony is subject to the general "liberal thrust" of the federal rules of evidence.
24 *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 588 (1993). Thus, "[v]igorous cross-examination,
25 presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and
26 appropriate means of attacking shaky but admissible [expert] evidence." *Id.* at 596.

27 Federal Rule of Evidence 403 provides that relevant evidence "may be excluded if its probative
28 value is substantially outweighed by the danger of unfair prejudice, confusion of the issues, or

misleading the jury, or by considerations of undue delay, waste of time, or needless presentation of cumulative evidence.” Fed. R. Evid. 403. Even if expert testimony is admissible under Rule 702, it may still be excluded under Rule 403. *See Rogers v. Raymark Indus., Inc.*, 922 F.2d 1426, 1430 (9th Cir. 1991).

DISCUSSION

Plaintiffs raise a host of arguments against the use of the barge model at trial. The Court considers each in turn.

1. Accuracy of the Barge Model

Plaintiffs’ primary argument is that the model should be excluded because it does not accurately represent the condition of the barge as of May 28, 1998. Specifically, plaintiffs argue that the model is limited to the permanent structures of the barge, and that a host of temporary fixtures were therefore left out.¹ Plaintiffs therefore seek to exclude the model, claiming that it is irrelevant and unduly prejudicial.

While the Court is unable to agree with plaintiffs’ argument that the model is wholly irrelevant, it agrees with plaintiff that the model in its current state is unduly prejudicial and misleading. As the photographs of the barge taken in 2005 clearly demonstrate, temporary fixtures on the barge can have a dramatic effect on the appearance of the barge. *See* Teukolsky Reply Decl., Exh. 11. Indeed, the difference between aerial photographs and similar views of the model is striking; while in the former the barge’s deck is cluttered with objects, the majority of which are many times larger than the workers

¹Although plaintiffs also purport to challenge the accuracy of the model’s depiction of the barge’s permanent structures, the thrust of this argument is directed at large containers that can be seen on a landing on the barge in 2005 photographs. As these containers do not appear in the technical drawings of the barge, the Court considers them temporary, not permanent, structures.

Plaintiffs also point to a few structural aspects of the model that they claim are potentially inaccurate. The most significant of these is a landing extending from the first floor of the deckhouse that plaintiffs claim was extended at some point in time since the plans were made. The Court believes that these areas of uncertainty about the barge’s precise layout on May 28, 1998, are relatively minor. Unlike the large obstructions that the temporary features represent, the uncertainty about the permanent features of the barge is likely to have relatively little impact on the accuracy of the model’s representation of the viewpoint of a given witness.

1 visible in the photo, the latter exhibits an entirely clean deck, devoid of anything that might obstruct a
2 witness's view. In the Court's opinion, this striking difference would only be magnified when the model
3 is used to illustrate the perspective of a witness. *See, e.g.*, Sand Decl., Exh. K.

4 Although both parties agree that the current state of the barge's deck is not indicative of the deck
5 eight years ago, plaintiffs have introduced evidence that a number of significant pieces of equipment
6 were on the barge's deck on May 28, 1998. For example, a number of men who were working on the
7 barge on that date testified that there was a second crane on the deck of the barge. Teukolsky Reply
8 Decl., Exh. 1 at 27, Exh. 2 at 168, Exh. 5 at 135, Exh. 6 at 280-81, Exh. 7 at 29. Some of these
9 witnesses also testified to the existence of a number of other large pieces of equipment, such as a 20-foot
10 container, a 40-foot container, stacks of 55-gallon drums, an 8-foot by 10-foot "Conex" box, "strong
11 boxes" that were being used as temporary living quarters for Nigerian military personnel, and
12 scaffolding. Teukolsky Reply Decl., Exh. 1 at 309 (20-foot container), Exh. 1 at 310 & Exh. 2 at 210
13 (40-foot container), Exh. 2 at 47, 211 (x-ray trailer), Exh. 2 at 177 (55-gallon drums), Exh. 5 at 214 &
14 Exh. 3 at 221-22 (Conex box), Exh. 7 at 29 (strong boxes), Exh. 7 at 89-90 (scaffolding). Thus, the
15 model's bare deck is a poor representation of the condition of the barge on May 28, 1998.²

16 The Court believes that, because of the model's inaccurate representation of the barge's deck,
17 the use of the model to attempt to show a witness's viewpoint should be excluded under Rule 403. As
18 an initial matter, the probative value of the model is substantially diminished by its inaccurate depiction
19 of the barge. While the model will allow the jury to understand where a witness was and what
20 perspective he had on the events that transpired, the jury's understanding will be incomplete. And this
21 incomplete understanding is likely to affirmatively mislead the jury as to what the witness could see.

22 While in many cases cross examination and the introduction of evidence that the barge's deck
23 was not bare would be sufficient to remedy the risk of misleading the jury, the Court does not believe
24 they suffice in this case. The computer model is a powerful tool, and, through its ability to place the
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26 ²Plaintiffs also argue particularly vigorously about a number of large containers that appear in
27 photographs taken of the barge in 2005, but that do not appear in the model. *See* Teukolsky Reply
28 Decl., Exh. 11 at Figures 15, 16. According to plaintiffs, the containers are particularly important
because they would have blocked the view of a number of Chevron witnesses who claim to have seen
the incident. Plaintiffs, however, have produced no witnesses that have testified to the presence of those
containers in 1998, and it is unclear when the containers were added.

1 jurors on the deck of the barge, runs a risk of making a strong impression on the mind of the jury. For
2 this reason, the Court believes it is important to have the computer model be as accurate as possible
3 before defendants may use it to illustrate for the jury aspects of what transpired on May 28, 1998. *See*
4 *Keller v. United States*, 38 F.3d 16, 32 n.10 (1st Cir. 1994) (demonstrative evidence must be a “fair” and
5 “accurate” depiction of the original).

6 Accordingly, the Court finds that the model, as currently depicted, may not be used because there
7 is a strong possibility that its probative value will be outweighed by its misleading effect on the jury.

8 9 **2. Freed’s Ability to Testify**

10 Defendants also move to exclude Freed from testifying because he had difficulty using
11 LightWave, the software that was used to create the computer model. During his deposition, when
12 Freed was demonstrating the software, he became stuck and was unable to resume the demonstration
13 without the assistance of one of his technicians. Teukolsky Decl., Exh. 3 at 172-178. Plaintiffs argue
14 that because Freed admitted he was “clumsy and slow” at operating the software, he does not have the
15 requisite expertise to testify. *Id.* at 174. In their reply brief, plaintiffs change this argument somewhat,
16 arguing that Freed may not testify because he did not personally create the model.

17 The Court disagrees with plaintiffs’ argument. While Freed admittedly was not entirely
18 proficient at using the LightWave software to demonstrate the model, this does not mean that he is not
19 qualified to render his opinion on the model’s accuracy. His report indicates that he made comparisons
20 between the model and the barge’s specifications, and concluded that “the level of accuracy is similar
21 to that of similar reconstructions of buildings, vehicles or other structures used as demonstrative exhibits
22 in trials throughout the United States.” Teukolsky Decl., Exh. 1. His qualifications include creating
23 “thousands of animated exhibits for hundreds of patent suits and aviation and industrial accidents,” as
24 well as testifying in seven such cases. *Id.* Despite his lack of proficiency with the 3-D modeling
25 software, the Court finds that Freed has sufficient expertise in the industry to render his opinion.

26 Nor does the Court find that the fact that Freed did not personally create the model renders him
27 unable to provide an expert opinion. While courts have excluded experts when their “assistants . . .
28 exercise professional judgment that is beyond the expert’s ken,” there is no indication that anything like

that occurred here. *Dura Automotive Sys. of Indiana, Inc. v. CTS Corp.*, 285 F.3d 609, 613 (7th Cir. 2002). Plaintiffs offer nothing more than speculation that Freed is “just parroting the opinion” of his technician. *Id.* Without more, the Court will not exclude Freed from testifying solely because he did not personally create the barge model.³ *See id.* (noting that a party may depose the expert’s assistants to determine the role they played in the expert’s conclusions).

4. Authentication of Drawings

As discussed above, Freed relied on three technical drawings of the CBL-101 barge to create the computer model of the barge. *See* Teukolsky Decl., Exh. 1. Plaintiffs argue that defendants have failed to authenticate these drawings, and that the model is therefore inadmissible because there is no way of knowing whether the technical drawings were actually of the CBL-101 barge.

Under Federal Rule of Evidence 901, the authentication of a document may be established “by evidence sufficient to support a finding that the matter in question is what its proponent claims.” Fed. R. Evid. 901(a). Rule 901(b) lays out a non-exhaustive list of factors that courts may consider as evidence of authenticity. This list includes “distinctive characteristics” of the document, such as its “appearance, contents, substance, internal patterns, or other distinctive characteristics, taken in conjunction with circumstances.” Fed. R. Evid. 901(b)(4).

Under this standard, the Court finds that defendants have introduced sufficient evidence to authenticate the drawings. The drawings themselves all state that they depict the “CBL-101” barge or the “Seaway Orion.” *See* Sand Decl., Exh. D. Plaintiffs do not dispute defendants’ contention that both CBL-101 and Seaway Orion refer to the barge at issue in this case. Further, both Ebert’s testimony and the declaration of Chip Brown indicate that Ebert obtained the drawings from the computer of the barge’s current captain during his site visit. *See* Sand Decl., Exh. E; Teukolsky Decl., Exh. 4 at 13. The location of the documents therefore supports defendants’ contention that the drawings are authentic. *See United States v. Bagaric*, 706 F.2d 42, 67 (2d Cir. 1983) (finding that there was sufficient evidence

³Indeed, the *Dura Automotive* case involved the process of “modeling groundwater flow,” a process much more complicated than the modeling in this case because “one never possesses complete geotechnical information” *Dura Automotive*, 285 F.3d at 614. Here, in contrast, the detailed nature of the drawings would in all likelihood leave far less room for professional judgment in creating the model.

1 to authenticate letter found in suspect's home and addressed to him), *overruled on other grounds by*
 2 *Nat'l Org. for Woman v. Scheidler*, 510 U.S. 249 (1994). In addition, in his expert report Ebert states
 3 that the drawings accurately capture the physical layout of the barge. *See* Teukolsky Decl., Exh. 2. He
 4 bases this conclusion on his site visit, including measurements that he made and compared to the
 5 drawings. *Id.* Finally, while not particularly probative, it is also apparent from a number of photographs
 6 of the barge that the model accurately captures the barge's general design.

7 Plaintiffs argue that the model here should be excluded based upon *Rhoads v. Virginia-Florida*
 8 *Corp.*, 476 F.2d 82 (5th Cir. 1973), but that case is easily distinguishable. The case concerned the
 9 admissibility of drawings to determine whether the defendants had built a seawall on their property or
 10 on the state-owned beach. *Id.* at 84. The trial court admitted the drawings, and the Fifth Circuit
 11 reversed, finding that the drawings had not been adequately authenticated. *Id.* In contrast to this case,
 12 the drawings were offered to prove the ultimate issue in dispute, the location of the seawall. *Id.* at 85
 13 (stating that documents were offered for "'testimonial use,' that is, where the documents themselves
 14 would 'testify' as direct evidence on a material disputed issue of fact") (footnotes omitted). More
 15 importantly, no witness testified that the drawings were generally accurate. *Id.* Here, in contrast, the
 16 model is not offered to prove any disputed issue, only to assist the jury in understanding the witnesses'
 17 testimony. In addition, Ebert has expressly testified that the drawings accurately reflect the layout and
 18 structure of the barge.

19 The Court finds that defendants have introduced sufficient evidence to authenticate the drawings
 20 used to create the model.⁴

21 22 23 **5. Additional Work by Freed**

24
 25 ⁴Plaintiffs also argue that defendants should not be allowed to use the drawings because they
 26 were produced after the close of discovery and because the defendants failed to supplement their answer
 27 to an interrogatory that requested the identification of all depictions of the barge. The Court finds that
 28 the prejudice plaintiffs have identified – the lack of an "opportunity to conduct any discovery into the
 origins of the drawings" – is insufficient to justify exclusion of the drawings or the model. Indeed,
 defendants produced highly similar drawings to plaintiffs prior to the close of discovery. *See* Sand
 Decl., Exh. C.

1 Plaintiffs also argue that Freed should be barred from performing any additional work on the
2 model, as the expert disclosure deadlines have now long passed. Specifically, plaintiffs claim that Freed
3 intends to supplement his report by 1) updating the model as he obtains additional information about
4 the barge's layout on May 28, 1998, 2) offering opinions about what specific witnesses could or could
5 not see on May 28, 1998, and 3) creating a new model of the Cheryl Ann tugboat, which was also
6 involved in the incident.

7 As to the third item, defendants have indicated that they have no intentions of creating a model
8 of the tugboat. As to the second item, defendants argue that Freed will offer no opinion about what
9 witnesses could or could not see on the day of the incident. Rather, Freed will testify that the model
10 is able to accurately represent the fields of view of the witnesses from various points on the barge. The
11 Court agrees with defendants that this opinion was expressed in Freed's original report.⁵ See Teukolsky
12 Decl., Exh. 1.

13 As to updating the barge in response to additional information about the barge's layout, the Court
14 believes defendants should have the opportunity to do so. Defendants produced Freed's report and the
15 model on time, and it is only because of this Court's ruling that the model is currently unusable. There
16 is ample time before trial for defendants to create a supplemental version of the barge to include a more
17 accurate representation of the equipment on the barge's deck on the day of the incident. Alternatively,
18 defendants indicated at oral argument that they could supplement the model to include mobile versions
19 of the temporary features described above. For example, defendants could create a 40-foot container
20 object that could then be placed at various positions on the deck of the barge based upon witness
21 testimony. The Court believes that this would be an acceptable way of addressing any conflicting
22 accounts of the placement of the large structures on the deck of the barge.⁶

23 Finally, in light of the additional work that Freed may perform, plaintiffs request that they be
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25 ⁵Defendants have indicated that they may produce animations using the model to illustrate how
26 a witness traveled through the barge while the incident was occurring. While it is one matter for a
27 witness to direct the "camera" through the model by his testimony, it is quite another to create an
28 animation based upon the deposition testimony of a non-testifying witness. The Court is skeptical that
use of the latter type of animations would be proper at trial.

⁶If possible, the Court encourages the parties to meet in advance of trial to determine whether
the locations of any of the temporary objects can be agreed upon.

1 reimbursed for payments they have made to rebuttal experts, to whom they have paid “thousands of
2 dollars” to examine the model defendants initially produced. The Court agrees with plaintiffs that they
3 are entitled to be reimbursed for the consequences of defendants’ somewhat tardy and incomplete work.
4 Accordingly, the Court ORDERS defendants to reimburse plaintiffs for the reasonable costs associated
5 with any supplemental analysis performed by their rebuttal experts going forward.

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7 **CONCLUSION**

8 For the foregoing reasons and for good cause shown, the Court hereby GRANTS IN PART
9 plaintiffs’ motion (Docket No. 1161).

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11 **IT IS SO ORDERED.**

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13 Dated: June 9, 2006



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15 SUSAN ILLSTON
16 United States District Judge
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